UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
SAM NUNN ATLANTA FEDERAL CENTER
61 FORSYTH STREET, SW, SUITE 23T85
ATLANTA, GEORGIA 30303-8931

October 5, 2007

EA 06-141

Mr. D. B. Ferguson, Jr.
President & CEO
Nuclear Fuel Services, Inc.
P. O. Box 337, MS 123
Erwin, TN 37650

SUBJECT: NRC INSPECTION REPORT NO. 70-143/2007-006 AND NOTICE OF VIOLATION

Dear Mr. Ferguson:

This refers to the inspection conducted from July 29, 2007, through September 8, 2007, at the Nuclear Fuel Services facility. The purpose of the inspection was to determine whether activities authorized by the license were conducted safely and in accordance with NRC requirements. At the conclusion of the inspection, the findings were discussed with those members of your staff identified in the enclosed report.

Areas examined during the inspection included: Safety Operations, Radiological Controls, Facility Support, and Decommissioning. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observation of activities in progress.

Based on the results of this inspection, the NRC has determined that a violation of NRC requirements occurred. The violation involved the failure to obtain approvals for a procedure modification. The violation was evaluated in accordance with the NRC Enforcement Policy. The current Enforcement Policy is available on the NRC's Web site at www.nrc.gov. The violation is cited in the enclosed Notice of Violation (Notice) and is being cited in the Notice because it was identified by the NRC.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. For your consideration, NRC Information Notice 96-28, "SUGGESTED GUIDANCE RELATING TO DEVELOPMENT AND IMPLEMENTATION OF CORRECTIVE ACTION," is available on the NRC's Web site. The NRC will use your response, in part, to determine whether further enforcement action is necessary to ensure compliance with regulatory requirements.

If you contest the violation, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001, with copies to the Regional Administrator, Region II, and the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001, and the NRC Resident Inspector at your facility.

By letter dated September 13, 2007, we received your reply to our Notice of Violation 70-143/2007-005-01, which was issued on August 27, 2007. The reply met the requirements of 10 CFR 2.201 and your corrective actions will be reviewed during a future inspection.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosures, and your response, if you choose to provide one, will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS), accessible from the NRC Web site at http://www.nrc.gov/readingrm/adams.html. To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the Public without redaction.

Should you have any questions concerning this letter, please contact us.

Sincerely,

/RA/
Alphonsa Gooden, Acting Chief
Fuel Facility Inspection Branch 1
Division of Fuel Facility Inspection

Docket No. 70-143
License No. SNM-124

Enclosures: 1. Notice of Violation
2. NRC Inspection Report

cc w/encls:
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(cc w/encls: Cont'd on page 3)

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X PUBLICLY AVAILABLE ☐ NON-PUBLICLY AVAILABLE ☐ SENSITIVE X NON-SENSITIVE
ADAMS: X Yes ACCESSION NUMBER:_____

OFFICE	RII:DFFI	RII:DFFI	RII:DFFI	RII:DFFI	RII:DFFI	ADC	
SIGNATURE	e-mail 10.5	Email 10/5	AG for 10/5	OL 10/5	AG for 10/5	DMC 10/5	
NAME	S. Burris	G. Smith	C. Taylor	O. Lopez	M. Crespo		
DATE	10/ /2007	10/ /2007	10/ /2007	10/ /2007	10/ /2007	10/ /2007	10/ /2007
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

OFFICIAL RECORD COPY DOCUMENT NAME: C:\FileNet\ML072780519.wpd

NOTICE OF VIOLATION

Nuclear Fuel Services, Inc.
Erwin, Tennessee

Docket No. 70-143
License No. SNM-124

During an NRC inspection conducted from July 29, through September 8, 2007, a violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violation is listed below:

> Safety Condition S-1 of Special Nuclear Materials License No. SNM-124, authorizes the use of licensed materials in accordance with the statements, representations, and conditions in the License Application and Supplements.
>
> Section 2.7 of the License Application, "Procedures," requires SNM operations and safety function activities to be conducted in accordance with written procedures.
>
> Section 2.7.2 of the License Application, "Operating Procedure Changes," requires modified or amended procedures to be prepared by the appropriate discipline manager and reviewed and approved by the safety review committee. Criticality safety, radiation safety, industrial safety, and environmental protection aspects of the changes will be considered and incorporated into the revised procedures as necessary. The safety analyses, required reviews and testing, required training, and distribution of procedure revisions will be completed before procedural changes are implemented.
>
> Contrary to the above, on August 28, 2007, the inspectors noted a procedure change was made to a letter of authorization (temporary procedure) without the required discipline safety reviews, training and safety committee approval.

This is a Severity Level IV violation (Supplement VI).

Pursuant to the provisions of 10 CFR 2.201, Nuclear Fuel Services, Inc. is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555 with a copy to the Regional Administrator, Region II, and a copy to the NRC Senior Resident Inspector at the facility that is the subject of this Notice, within 30 days of the date of the letter transmitting this Notice of Violation (Notice). This reply should be clearly marked as a "Reply to a Notice of Violation" and should include for each violation: (1) the reason for the violation, or, if contested, the basis for disputing the violation or severity level, (2) the corrective steps that have been taken and the results achieved, (3) the corrective steps that will be taken to avoid further violations, and (4) the date when full compliance will be achieved. Your response may reference or include previously docketed correspondence, if the correspondence adequately addresses the required response. If an adequate reply is not received within the time specified in this Notice, an order or a Demand for Information may be issued as to why the license should not be modified, suspended, or revoked, or why such other action as may be proper should not be taken. Where good cause is shown, consideration will be given to extending the response time.

If you contest this enforcement action, you should also provide a copy of your response to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, D.C. 20555-0001.

Because your response will be made publically available, to the extent possible, it should not include any personal privacy, proprietary, or safeguards information so that it can be made publically available without redaction. If personal privacy or proprietary information is necessary to provide an acceptable response, then please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request withholding of such material, you must specifically identify the portions of your response that you seek to have withheld, and provide in detail the basis for your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.390(b) to support a request for withholding confidential commercial or financial information). If safeguard's information is necessary to provide an acceptable response, please provide the level of protection described in 10 CFR 73.21.

In accordance with 10 CFR 19.11, you may be requested to post this Notice within two working days.

Dated this 5th day of October, 2007.

U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket No.:	70-143
License No.:	SNM-124
Report No.:	70-143/2007-006
Licensee:	Nuclear Fuel Services, Inc.
Facility:	Erwin Facility
Location:	Erwin, TN 37650
Dates:	July 29, 2007 - September 8, 2007
Inspectors:	S. Burris, Senior Resident Inspector G. Smith, Resident Inspector C. Taylor, Senior Health Physicist J. Foster, Fuel Facilities Inspector (In-Training) O. Lopez, Fuel Facilities Inspector
Approved by:	A. Gooden, Acting Chief Fuel Facility Inspection Branch 1 Division of Fuel Facility Inspection

Enclosure 2

EXECUTIVE SUMMARY

Nuclear Fuel Services, Inc.
NRC Inspection Report No. 70-143/2007-006

This inspection included observations conducted by the resident inspectors and regional inspectors during normal and off-normal shifts in the areas of safety operations, radiological controls, facility support, and decommissioning within the fuel manufacturing and blended low-enriched uranium (BLEU) preparation facility (BPF). The licensee continued to conduct decommissioning activities at the North Site throughout the inspection period. Final status survey sampling activities were completed in Survey Units 11 and 7 during this inspection period.

Safety Operations

- All of the operations activities observed were performed safely and in accordance with approved procedures (Paragraph 2.a).

- Transient combustibles were controlled and minimized (Paragraph 2.b).

- Criticality station limit cards were followed by licensee personnel (Paragraph 2.c).

Radiological Controls

- Radiation work permits were adequately developed and implemented in order to ensure personnel exposure was kept as low as reasonably achievable (ALARA) (Paragraph 3.a).

Facility Support

- The observed maintenance activities were performed according to maintenance authorizations, work control procedures, and safety permits (Paragraph 4.a).

- An unresolved item was identified regarding the licensee's actions related to safety equipment functional test procedures (Paragraph 4.b).

- The inspectors noted an unresolved item regarding the documentation of technical bases in plant modification packages (Paragraph 4.c).

- A violation was cited for failure to properly review and approve a procedure change. The change was inappropriately implemented as a work instruction and thus was not processed through the normal review sequence. Also, no training was implemented to familiarize the operators with the new procedural requirements (Paragraph 4.d).

Decommissioning

- The licensee had completed sampling activities for Survey Unit 11 and had begun work in Survey Unit 7. The inspectors were able to split eleven samples for analysis with the licensee from Survey Unit 7. The samples were taken from various locations and depths within the survey units (Paragraph 5.a).

- The procedures and activities associated with sample packaging, shipment, and chain of custody were found to be adequate. The samples were stored and locked in an area where access was restricted (Paragraph 5.b).

- The procedure associated with quality assurance of decommissioning activities was reviewed and observed in the field. The inspectors discussed with the licensee the procedure relative to radiological quality control samples. This was identified as an Inspector Follow Up Item (Paragraph 5.c).

Attachment:
Partial List of Persons Contacted
Inspection Procedures Used
List of Items Opened, Closed, and Discussed

REPORT DETAILS

1. Summary of Plant Status

Fuel manufacturing, training activities, and scrap recovery processes were operated throughout the reporting period. Blended low-enriched uranium (BLEU) oxide conversion activities operated normally during the inspection period. BLEU Preparation Facility (BPF) operations were conducted in accordance with license requirements. Decommissioning, including processing, packaging, and shipping of contaminated soil and debris from burial grounds continued under normal operations.

2. Safety Operations

a. Plant Operations (Inspection Procedure (IP) 88135)

(1) Inspection Scope and Observations

The inspectors performed daily tours of the fuel process areas, BPF facility, vaults, storage areas and the waste treatment facility. The inspectors verified that the licensee was in compliance with standard operating procedures (SOPs), staffing was adequate for the level of activities, operations personnel were attentive to their duties and responsibilities, operation of the facility and equipment was in accordance with the appropriate station limits, and verified that safety controls were being implemented and controlled. Communications were monitored between supervision and operators to ensure that safety activities were being performed in accordance with design and administrative controls. Adequate oversight was provided by supervision and the supervisors were aware of the current status of the facility and equipment. The inspectors verified that evacuation paths were not blocked due to inadequate housekeeping.

The inspectors performed a detailed walkdown of the Uranium Metal System in BPF. As part of this walkdown, the inspectors reviewed the Integrated Safety Analysis (ISA) to verify the assumptions and controls were properly implemented in the field via engineered and administrative controls. The inspectors also verified that personnel were aware of these assumptions and controls. The inspectors sampled various components and verified the as-built configuration matched the process drawings. Items Relied On For Safety (IROFS) were verified to be properly functioning and operators were knowledgeable of requirements associated with these IROFS. The inspectors also verified that there were no external hazards that could degrade system performance. The inspectors observed equipment maintenance in the uranium metal areas and uranium aluminum areas in BPF. The inspectors reviewed the documentation and controls used to support maintenance to verify that work documents reflected the proper approvals and reviews of the proposed activities. Personnel were properly implementing work steps as designed and management oversight was evident during the work activities. The inspectors verified that proper controls (Work Requests, Lockout/Tagout sheets, Safety Work Permits) were in place and being implemented during the work activities.

The inspectors also performed a detailed walkdown of area 300/400. As part of this walkdown, the inspectors reviewed the criticality safety analysis to verify assumptions and controls were properly implemented in the field via engineered and administrative controls. The inspectors also verified that the personnel were aware of these assumptions and controls. The inspectors sampled various components and verified the as-built configuration matched the process drawings. IROFS were verified to be properly functioning and operators were knowledgeable of requirements associated with these IROFS. The inspectors also verified that there were no external hazards that could degrade system performance.

(2) Conclusions

All of the operations activities observed were performed safely and in accordance with approved procedures.

b. Fire Protection (IP 88135)

(1) Inspection Scope and Observations

During daily plant tours, the inspectors verified that transient combustibles were adequately controlled and minimized and fire barriers were properly maintained.

(2) Conclusions

Maintenance of fire barriers was adequate and transient combustibles were controlled.

c. Criticality Safety (IP 88135)

(1) Inspection Scope and Observations

During daily operating area tours, the inspectors verified that various criticality controls were in place, and station limit card requirements were observed by personnel. Containers were adequately controlled in order to minimize criticality hazards. The inspectors sampled a number of IROFS to verify their operability. Operators were knowledgeable of the IROFS' requirements. IROFS were adequately identified in the field as well as on plant controlled drawings.

(2) Conclusions

Licensee criticality controls were adequately followed by licensee personnel.

3. Radiological Controls

a. Radiation Protection (IP 88135)

(1) Inspection Scope and Observations

The inspectors reviewed the radiological controls requirements described in Safety Work Permit (SWP) 07-03-032. This SWP dealt with a pump change out in the recovery area. The inspectors verified that personnel complied with the requirements of the SWP and that job description, contamination levels, radiation levels, dosimetry, and protective clothing were adequately addressed by the SWP. The inspectors noted that the SWP was prominently posted and readily available for employees' review and observation.

(2) Conclusions

The licensee complied with SWP requirements and ensured that dose was maintained as safely as reasonably achievable (ALARA).

4. Facility Support

a. Maintenance Implementation (IP 88025)

(1) Inspection Scope and Observations

The inspectors reviewed maintenance activities to ensure that maintenance work did not adversely impact the safety of plant operations or the workers. The inspectors observed maintenance activities in fuel manufacturing and BPF.

The inspectors noted that a safety review was performed before beginning work. The safety reviews were conducted using safety work permits and included the required pre-job briefings. The maintenance packages contained the safety requirements for safe completion of the work. The inspectors also reviewed several locked-out and tagged-out permits, and no safety issues were identified.

The maintenance workers wore the appropriate personal protective equipment (PPE). When interviewed, workers were able to explain the safety requirements and the actions needed to bring the system back to safe operation. The inspectors interviewed operations personnel to verify they were following maintenance activities. The operators provided the inspectors with information detailing the maintenance process from scheduling to completion. No safety issues were identified.

(2) Conclusions

The observed maintenance activities were performed according to maintenance authorizations, work control procedures, and safety permits.

b. Surveillance and Calibration Testing Implementation (IP 88025)

(1) Inspection Scope and Observations

The inspectors reviewed functional test records for in-line monitors and the combustible gas shut-off system. The inspectors noted that functional tests were performed at the required frequency. The inspectors also reviewed maintenance records to verify that the criticality alarm monitoring system was tested to confirm reliability and operability. No safety problems were identified.

The inspectors observed a functional test of a safety related programmable logic controller in the BPF and determined that the test was adequately performed to ensure the safety function was maintained.

The inspectors also observed a leak test of a valve in the fuel process. The licensee could not perform the test as written because the instructions were missing specific steps. The licensee entered the issue in the corrective action program (PIRCS 10949). The inspectors identified two additional leak tests in the fuel process that could not be performed as written. The inspectors also noted that the licensee conducted the leak tests last year although they could not be performed as written. The licensee committed to perform an extent-of-condition review of these issues and the review will be tracked as unresolved item (URI) 70-143/2007-006-01.

(2) Conclusions

An URI was identified related to the licensee's actions for safety equipment functional test procedures.

c. Maintenance/Surveillance (IP 88135)

(1) Inspection Scope and Observations

The inspectors performed an assessment of the maintenance and surveillance activities to ensure that IROFS and other safety controls were being maintained and available to perform their safety function when needed. These assessments included work control documents, permits, and other required controls.

Through interviews with personnel, observation of on-going activities, and discussions with the licensee, the inspectors determined that procedures associated with operations and safety management systems were reviewed in the appropriate time frame and approved by the appropriate management. The inspectors verified that changes to procedures were properly reviewed by the appropriate level of management and were performed at the designated frequency. The inspectors verified that the appropriate safety management personnel were included in the review and approval of procedure changes. The inspectors found no examples of outdated procedures during the inspection.

During a tour of the fuel processing area, the inspectors reviewed Work Request (WR) #16084. This maintenance involved the replacement of a pump. The pump was being replaced by a different manufacturer with an upgraded thrust bearing. However, the post maintenance testing revealed that the pump had insufficient head such that the associated container could not be placed on recirculation. Subsequent review revealed that the new motor operated at 50 percent of the speed of the previous motor, thus altering the pump curve. The inspectors noted the WR included few details regarding the engineering analysis associated with this plant modification.
10 CFR 70.72(a)(1) requires a configuration management system and it must address the technical basis for any change to structures, systems, or components prior to implementing the change. This issue will be tracked as an unresolved item (URI) 70-143/2007-006-02.

(2) Conclusions

The inspectors noted a weakness in the development of plant modification documents. This issue will be reviewed further by the NRC.

d. Management Organization and Controls (IP 88135)

(1) Inspection Scope and Observations

The inspectors reviewed the licensee's Problem Identification, Resolution, and Correction System (PIRCS) entries to ensure that items adverse to requirements and quality were being identified and tracked to closure. Those items reviewed were being properly identified, reviewed and tracked to completion.

Personnel changes were implemented throughout the inspection period due to contract requirements for shift preferences. The inspectors verified that these personnel changes were performed with due diligence with regard to qualification and training requirements for the reassignments. During the inspection period, an issue regarding forced overtime was addressed by the licensee. Several individuals were having to work double shifts (up to 16 hours per day). This situation arose due to the new labor contract overtime requirements which allocated all of the overtime to the most junior member of the work group. This would not be an issue except where the work schedule required significant amounts of overtime. The inspectors discussed this issue with both union and licensee management and both parties assured the inspector that this item would be resolved as soon as possible.

During the inspection period, the inspectors performed a daily review of the PIRCS. This review included an evaluation of all problem reports to ensure that NFS sufficiently tracks known deficiencies. This review also considered whether the appropriate corrective actions had been taken and whether an adequate evaluation had been performed for the identified problems. The inspectors also verified that the licensee adequately evaluated the extent of condition for all issues.

During a tour of Area 800, the inspectors reviewed a set of work instructions (WIs) regarding a particular process in use on unit J. WIs are strictly defined in NFS procedure NFS-TS-001, "Preparation and Issuance of Work Instructions and Letters of Authorization (LOA)," Rev. 3 as instructions written to address specific occurrences, processing parameters, and other processing requirements for material or systems. LOAs are simply temporary procedures and have expiration dates. In all cases, WIs will be predefined within a governing SOP or LOA. WIs do not receive the same level of review that a procedure or LOA receives. In this case, the WI was simply written by the process engineer and delivered directly (via an operations supervisor) to operators in the field for immediate implementation. The inspectors reviewed this particular WI that was associated with a specific lot/batch of material and described under LOA 2054N-004. The inspectors noted that several valve manipulations were called out and some instructions were somewhat unclear. The inspectors discussed the WI with field operators and noted there was confusion about exactly how to implement some specific steps. The inspectors ultimately determined that this WI went beyond its designated intent and was simply a revision to the associated LOA.

Therefore, as a procedure (or LOA) change, this WI should have received from criticality safety, radiation safety, industrial safety, and environmental protection review, according to Section 2.7.2 of the facility license. Additionally, the license requires prior safety committee review of a procedure change, as well as adequate operator training, prior to placing the procedure change into effect. Improper implementation of procedural instructions without the requisite reviews and training is a violation (VIO) of NRC requirements (VIO 70-143/2007-006-03).

(2) Conclusions

The inspectors noted a violation for failure to properly implement a change to plant procedures.

5. Decommissioning (IP 88104)

a. Sampling Activities

(1) Inspection Scope and Observations

The inspectors observed the licensee's sampling activities and split ten soil samples for independent analysis verification. The radiological analysis data set from Survey Unit 7 and Survey Unit 11, an area NFS had previously sampled, was not yet available.

The licensee had developed a new subsurface sampling technique to release the remediated North Site. The sampling technique was approved for use in License Amendment 69. The North Site was divided into twenty survey units based on geological soil distribution, natural barriers, and historical site assessments. The sampling technique used a sonic driller to extract coreholes at depths to ten meters from the ground surface. The sonic driller discontinues drilling if it hits bedrock prior to reaching a ten meter depth.

The cores are divided into one meter segments and packaged in the field. The soil samples are dried and ground by an NFS contracting laboratory due to the moisture content and heterogeneous nature of the soil. A percentage of the ground, homogeneous soil samples are split for independent radiological analysis by the NRC. NFS is analyzing 100% of the samples for gamma contamination while sending 10% of the samples to a contracting laboratory for gamma and alpha spectroscopy measurements. Separately packaged and refrigerated soil samples are sent directly to the NRC and NFS contracting laboratories to be analyzed for Tc-99 contamination. Results from the analyses would determine if more remediation by the licensee is required.

The inspectors determined that the contractor's sampling activities were implemented through procedure, "Soil, Sediment and Waste Sampling, Sample Custody, and Sampling Shipping and Transfer Procedures, NFS-DC-027, Revision 3." The samples observed by the inspectors were collected, controlled, and recorded in accordance with Procedure NFS-DC-027.

NRC and NFS chain-of-custody was maintained on eleven samples; ten of which will be independently verified by the NRC contracting laboratory. From the ten samples, five additional Tc-99 samples were packaged for the NRC. The remaining soil sample will be stored as an additional sample after the dry and grind process. The inspectors observed that the drill locations were properly located per Procedure NFS-DC-027. Daily entries, deviations and sample relocations were properly documented in the licensee's decommissioning log in accordance with written procedures. The inspectors noted adequate oversight of the contractor's actions in the field. A radiation technician and health physics representative were available for consultation and the NFS sampling supervisor was present throughout the sample boring process. There were no significant safety items identified.

(2) Conclusions

The licensee had completed sampling activities for Survey Unit 11 and had begun work in Survey Unit 7. The inspectors split 10 soil samples with the licensee from Survey Unit 7. The samples were taken from various locations and depths within the survey units.

b. Chain of Custody and Packaging and Shipment

(1) Inspection Scope and Observations

The inspectors reviewed the licensee's program for sample packaging, shipment, and chain of custody to verify that it was in accordance with the licensee's approved procedures.

The inspectors reviewed Section 8 of Procedure NFS-DC-027 which described the packaging, shipment, and chain-of-custody of the soil samples. The inspectors observed the samples being packaged, and determined that the licensee packaged

samples and documented information accurately to maintain chain-of-custody. The NRC split samples were tamper-sealed, packaged and shipped by NRC inspectors. The samples were stored and locked in an area where access was restricted. No items of safety significance were identified.

(2) Conclusions

The procedures and activities associated with package, shipment and chain of custody were found to be adequate. The samples were stored and locked in an area where access was restricted.

c. Quality Assurance and Control and Training

(1) Inspection Scope and Observations

The inspectors reviewed the licensee's quality assurance (QA) and training program to verify that a quality assurance program had been implemented and contractors and personnel participating in sampling activities had received the appropriate training as required by the licensee's procedures.

The inspectors reviewed the results of "Audit # QA-07-08," conducted on July 20, 2007. The audit documented three findings associated with the decommissioning activities. Two findings involved procedural inadequacies while the other involved failure to perform a shipping release survey on samples. The inspectors determined that the findings had been discussed with the licensee's management and corrective actions had been implemented.

The inspectors reviewed procedures, Quality Assurance Plan for Environmental Sampling Projects, NFS-DC-027, Rev. 4, and Quality Assurance Program, NFS-M-48, Rev. 3, and observed sampling activities out in the field. Section 5.3 of Procedure NFS-DC-027 required the licensee to collect a quality control sample for every ten samples. The procedure listed several options to collect the quality control sample. The options included, matrix spike, field duplicates, equipment rinses and/or analyte-free trip blanks. The procedure did not specifically identify radiological quality control sampling requirements. In addition, a memorandum dated July 10, 2007, discussed control sampling for non-radiological samples but not for radiological samples. During sampling activities, the inspectors observed the licensee collecting quality control samples for Solid Waste Management Units (SWMU). The SWMU samples are volatile organics and are not radiological samples. The inspectors discussed with the licensee the purpose of quality control sampling for radiological samples and the issue of cross-contamination. The licensee agreed that the radiological quality control samples were not collected at the time of the inspection nor during past sampling activities of Survey Units 11 and 7. The inspectors discussed with the licensee Procedure NFS-DC-027, to address radiological quality control sampling as an Inspector Followup Item (IFI) (70-143/2007-006-04).

On July 31, 2007, an NRC inspector accompanied the NFS Quality Assurance representative to Teledyne Brown Engineering, Inc., the licensee's contract laboratory, in Knoxville, TN. The laboratory is responsible for processing of the North Site soil

samples. The standard operation procedures for the sample processing, receipt, and control were reviewed. During a facility tour, the inspectors toured the sample storage area, and observed laboratory employees demonstrating chain-of-custody procedures along with equipment used in the sample preparation.

(2) Conclusions

The procedure associated with QA of decommissioning activities was reviewed and observed in the field. The inspectors determined that the licensee was not collecting radiological quality control samples in the field. This was identified as an IFI.

6. Followup on Previously Identified Issues

(Closed) URI 70-143/2005-04-01 (EA 06-141): Waste transfer without procedural authorization. This issue concerned the transfer of waste solution into a storage area without procedural authorization. As a corrective action, the licensee took action with the individual involved in the issue. The licensee conducted training sessions related to procedure compliance and the use of trained and qualified personnel. The licensee eliminated standing letter of authorizations that allowed the use of flexible hoses. The licensee implemented hard piping for all credible situations requiring use of flexible hoses in BPF. This item is considered closed.

(Open) VIO 70-143/2007-005-01: The violation identified a failure of the licensee to follow NFS approved procedures as outlined in the NFS Decommissioning Plan. The inspectors reviewed the licensee's corrective actions and determined that the licensee had revised current procedures to accurately capture decommissioning activities for the North Site; provided training for the contractors involved in the decommissioning activities; and included the involvement of the quality assurance program in the decommissioning process. However, the violation will remain open until IFI 2007-006-04 above is closed.

7. Exit Meeting

The inspection scope and results were presented to licensee management at various meetings throughout the inspection period and were summarized on September 11, 2007. No dissenting comments were received from the licensee.

ATTACHMENT

1. PERSONS CONTACTED

Partial List of Licensee 's Persons Contacted

R. Brooks, Contractor (MACTEC)
R. Crowe, Corrective Actions Program Manager
R. Droke, Licensing & Compliance Director/Acting Safety Director
B. Faidley, Building Manager, Fuel Production
J. Green, Decommissioning Supervisor
J. Hutton, Quality Engineer
T. Lindstrom, Executive Vice President, HEU Operations
J. Lively, Contractor (MACTEC)
M. Moore, Vice President, Safety & Regulatory
J. Nagy, Senior Licensing & Regulatory Compliance Officer
J. Parker, Industrial Safety Manager
D. Rogers, Building Manager,BPF Production
A. Vaughan, Fuel Production Director
J. Wheeler, Licensing & ISA Manager

2. INSPECTION PROCEDURES USED

IP 88135	Resident Inspector Program for Category 1 Fuel Cycle Facilities
IP 88104	Decommissioning Inspection Procedure for Fuel Cycle Facilities
IP 88025	Maintenance and Surveillance of Safety Controls

3. LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Item Number	Status	Type	Description
70-143/2007-006-01	Open	URI	SRE tests (Paragraph 4.b)
70-143/2007-006-02	Open	URI	Technical basis documentation for a plant modification (Paragraph 4.c)
70-143/2007-006-03	Open	VIO	Inadequate review/approval for a procedure change (Paragraph 4.d)
70-143/2007-006-04	Open	IFI	Collect samples for radiological sampling (Paragraph 5.c)
70-143/2005-004-01	Closed	URI	Waste transfer without procedural authorization (Paragraph 6)
70-143/2007-005-01	Open	VIO	Failure to have approved procedures prior to performing sampling (Paragraph 6)